

IN THE CLAIMS:

1-4. (Cancelled)

5. (Previously Presented) A joint structure to be connected to an assembly and a link of a robot, the joint structure comprising:

a first motor configured to cause the assembly to swing in a longitudinal motion with respect to the link;

a second motor configured to cause the assembly to swing in a lateral motion with respect to the link, wherein the first motor and the second motor are disposed so that the output shaft of the first motor and the output shaft of the second motor are parallel with each other and are orthogonal to the link;

a first rotary unit is connected to the assembly;

a second rotary unit configured to support the first rotary unit while allowing the rotation around a first axis of the first rotary unit;

a base configured to support the second rotary unit while allowing the rotation around a second axis orthogonal to a first axis of the second rotary unit, wherein the first motor and the second motor are disposed on the base;

a first swing lever is connected to an output shaft of the first motor, and configured to change the rotation of the output shaft of the first motor into a reciprocating motion;

a joint is connected to the first swing lever and the first rotary unit, and configured to transfer the reciprocating motion to the first swing lever to rotate the first rotary unit around the first axis;

a second swing lever is connected to an output shaft of the second motor, and

configured to change a rotary motion of the output shaft of the second motor into a reciprocating motion; and

a rod which is connected to the second swing lever and the second rotary unit, and configured to transfer the reciprocating motion to the second rotary unit to rotate the second rotary unit around the second axis.

6. (Cancelled)

7. (Currently Amended) A joint structure of a robot according to claim 52 further comprising:

a motor side pulley is connected to an output shaft of a third motor;

a driven pulley is connected to the base and configured to rotate the base around the central axis of the rotary motion; and

a belt configured to transfer the rotation of the motor side pulley to the driven pulley.

8-10. (Cancelled)